

AMENDMENTS TO THE CLAIMS

1 1. (Original) A method of interacting with a client process on a mobile device connected
2 to a network over a wireless link to navigate an application, the method comprising the steps
3 of:

4 managing information at a mobile application server executing on a platform
5 connected to the network, the information including first data describing a
6 graphical element for display on the mobile device, the first data including a
7 first reference to the graphical element and a second reference to a page
8 associated with requesting a service from a first application;
9 sending to the client process for rendering the graphical element on the mobile device,
10 second data based on the first data, the second data including the first
11 reference;
12 receiving third data indicating the first reference in response to a user of the mobile
13 device selecting the graphical element; and
14 in response to receiving the third data, requesting the page from the first application
15 based on the second reference.

1 2. (Original) The method of Claim 1, wherein the second data does not include the
2 second reference to the page.

1 3. (Original) The method of Claim 1, wherein the step of managing further comprises
2 storing the first data in a data structure.

1 4. (Original) The method of Claim 3, wherein the second reference is a value of a next
2 page attribute of the data structure.

1 5. (Original) The method of Claim 3, wherein the data structure inherits methods and
2 attributes from a bean class for exhibiting persistence and serialization.

1 6. (Original) The method of Claim 5, wherein the bean class is a JavaBeans class.

1 7. (Original) The method of Claim 1, further comprising the step of receiving fourth data
2 from a second application, the fourth data describing the graphical element and including the
3 second reference to the page associated with requesting the service from the first application.

1 8. (Original) The method of Claim 7, wherein the second application is different than the
2 first application.

1 9. (Original) The method of Claim 7, wherein the second application is the same as the
2 first application.

1 10. (Original) The method of Claim 7, said step of managing the information further
2 comprising generating the first reference based on the fourth data.

1 11. (Original) The method of Claim 1, further comprising the step of receiving fourth data
2 from the first application in response to said step of requesting the page, the fourth data
3 describing the page and comprising fifth data describing a different graphical element for
4 display on the mobile device, the fifth data including a third reference to a different page
5 associated with requesting a service from a second application.

1 12. (Original) The method of Claim 11, wherein the information managed by the mobile
2 applications server includes the fifth data.

1 13. (Original) The method of Claim 1, wherein the information managed includes fourth
2 data about a plurality of pages associated with a plurality of applications and the step of
3 managing the information further comprises generating a unique name for the page among the
4 plurality of pages based on the second reference.

1 14. (Original) The method of Claim 1, said step of requesting the page further comprising
2 providing fourth data to the application based the information managed by the mobile
3 applications server.

1 15. (Original) The method of Claim 14, wherein the fourth data includes the second
2 reference.

1 16. (Original) The method of Claim 14, wherein the third data does not include the fourth
2 data.

1 17. (Original) The method of Claim 14, wherein the second data does not include the
2 fourth data.

1 18. (Original) The method of Claim 14, wherein the fourth data comprises a universal
2 resource locator (URL) address for the page for use with an Internet protocol (IP) on the
3 network.

1 19. (Original) The method of Claim 18, wherein the fourth data further comprises input
2 parameters and corresponding values for use by the application at the URL address in
3 providing the service associated with the page.

1 20. (Original) The method of Claim 1, wherein:
2 the graphical element is included on a different page associated with requesting a
3 different service from a second application;
4 the different page has a third reference; and
5 the method further comprises requesting the different service from the second
6 application in response to receiving the third data based on the third reference.

1 21. (Original) The method of Claim 20, wherein the second application is different than
2 the first application.

1 22. (Original) The method of Claim 20, wherein the second application is the same as the
2 first application.

1 23. (Original) The method of Claim 20, wherein:
2 the information managed by the mobile applications server includes fourth data
3 describing the different page including the third reference to the different page;
4 the step of requesting the different service from the second application further
5 comprising sending fifth data to the second application based on at least one of
6 the first data and the fourth data.

1 24. (Original) The method of Claim 20, wherein the step of requesting the different
2 service from the second application comprises invoking a particular method of the second
3 application.

1 25. (Original) The method of Claim 24, wherein:
2 the particular method is an event handling method for an exiting page event associated
3 with the different page;
4 the step of invoking the particular method further comprises generating an exiting
5 page event for the different page; and
6 the exiting page event includes the third reference.

1 26. (Original) The method of Claim 25, wherein:
2 the page is data structure that inherits methods and attributes from a mobile bean class
3 defining an event handling interface for an exiting page event; and
4 the particular method is an implementation of the event handling interface; and
5 the page includes the particular method.

1 27. (Original) The method of Claim 26, wherein the mobile bean class inherits methods
2 and attributes from a JavaBeans class.

1 28. (Original) The method of Claim 20, wherein the second data does not include the third
2 reference.

1 29. (Original) The method of Claim 20, wherein the third data does not include the third
2 reference.

1 30. (Original) The method of Claim 20, said step of requesting the different service
2 further comprising providing fourth data to the application.

1 31. (Original) The method of Claim 30, wherein the fourth data comprises a universal
2 resource locator (URL) address for the page for use with an Internet protocol (IP) on the
3 network.

1 32. (Original) The method of Claim 31, wherein the fourth data further comprises input
2 parameters and corresponding values for use by the application at the URL address in
3 providing the service associated with the page.

1 33. (Original) The method of Claim 31, wherein the second data does not include the
2 URL address.

1 34. (Original) The method of Claim 31, wherein the third data does not include the URL
2 address.

1 35. (Currently Amended) A method of interacting with a client process on a mobile
2 device connected to a network over a wireless link to navigate an application, the method
3 comprising the steps of:

managing information at a mobile application server executing on a platform
connected to the network, the information including
first data describing a plurality of pages sent for display on the mobile device,
each page associated with requesting a service from an application,
wherein each page has one or more graphical elements and the first
data includes a reference to each graphical element of the one or more
graphical elements, and
second data describing associations between special keys on the mobile device
and page changes among the plurality of pages;
receiving third data from the client process indicating a user of the mobile device has
pressed a particular key of the special keys; and
in response to receiving the third data, performing the steps of:
determining a particular page change of the page changes associated with the
particular key, and
requesting the particular page change from the application,
determining a particular page of the plurality of pages based on the first data
and the particular page change, and
sending, to the client process for rendering a particular graphical element of
the particular page, fourth data based on the first data, the fourth data
including a particular reference to the particular graphical element.

36. (Original) The method of Claim 35, wherein the page changes include a page back
change and a page forward change.

37. (Original) The method of Claim 35, wherein the page changes include a return to a
menu page.

38. (Currently Amended) The method of Claim 35, said step of requesting the particular
page change from the application comprising the steps of:

3 ~~determining a particular page of the plurality of pages based on the first data and the~~
4 ~~particular page change; and~~
5 requesting the particular page from the application.

1 39. (Currently Amended) The method of Claim 38, said step of requesting the particular
2 page from the application comprising the steps of:

3 generating ~~fourth~~fifth data indicating the particular page; and
4 invoking a first method of the application with the ~~fourth~~fifth data as an input
5 parameter.

1 40. (Currently Amended) The method of Claim 39, wherein:

2 the ~~fourth~~fifth data describes an event; and
3 the first method of the application is an event handling method.

1 41. (Original) A computer-readable medium carrying instructions for interacting with a
2 client process on a mobile device connected to a network over a wireless link to navigate an
3 application, the computer-readable medium comprising instructions for causing one or more
4 processors to perform the steps of:

5 managing information including first data describing a graphical element for display
6 on the mobile device, the first data including a first reference to the graphical
7 element and a second reference to a page associated with requesting a service
8 from a first application;
9 sending to the client process for rendering the graphical element on the mobile device,
10 second data based on the first data, the second data including the first
11 reference;
12 receiving third data indicating the first reference in response to a user of the mobile
13 device selecting the graphical element; and
14 in response to receiving the third data, requesting the page from the first application
15 based on the second reference.

1 42. (Original) The computer-readable medium of Claim 41, wherein the second data does
2 not include the second reference to the page.

1 43. (Original) The computer-readable medium of Claim 41, wherein the step of managing
2 further comprises storing the first data in a data structure.

1 44. (Original) The computer-readable medium of Claim 43, wherein the second reference
2 is a value of a next page attribute of the data structure.

1 45. (Original) The computer-readable medium of Claim 43, wherein the data structure
2 inherits methods and attributes from a bean class for exhibiting persistence and serialization.

1 46. (Original) The computer-readable medium of Claim 45, wherein the bean class is a
2 JavaBeans class.

1 47. (Original) The computer-readable medium of Claim 41, the instructions further
2 causing the one or more processors to perform the step of receiving fourth data from a second
3 application, the fourth data describing the graphical element and including the second
4 reference to the page associated with requesting the service from the first application.

1 48. (Original) The computer-readable medium of Claim 47, wherein the second
2 application is different than the first application.

1 49. (Original) The computer-readable medium of Claim 47, wherein the second
2 application is the same as the first application.

1 50. (Original) The computer-readable medium of Claim 47, said step of managing the
2 information further comprising generating the first reference based on the fourth data.

1 51. (Original) The computer-readable medium of Claim 41, the instructions further
2 causing the one or more processors to perform the step of receiving fourth data from the first
3 application in response to said step of requesting the page, the fourth data describing the page
4 and comprising fifth data describing a different graphical element for display on the mobile
5 device, the fifth data including a third reference to a different page associated with requesting
6 a service from a second application.

1 52. (Original) The computer-readable medium of Claim 51, wherein the information
2 managed by the mobile applications server includes the fifth data.

1 53. (Original) The computer-readable medium of Claim 41, wherein the information
2 managed includes fourth data about a plurality of pages associated with a plurality of
3 applications and the step of managing the information further comprises generating a unique
4 name for the page among the plurality of pages based on the second reference.

1 54. (Original) The computer-readable medium of Claim 41, said step of requesting the
2 page further comprising providing fourth data to the application based the information
3 managed by the mobile applications server.

1 55. (Original) The computer-readable medium of Claim 54, wherein the fourth data
2 includes the second reference.

1 56. (Original) The computer-readable medium of Claim 54, wherein the third data does
2 not include the fourth data.

1 57. (Original) The computer-readable medium of Claim 54, wherein the second data does
2 not include the fourth data.

1 58. (Original) The computer-readable medium of Claim 54, wherein the fourth data
2 comprises a universal resource locator (URL) address for the page for use with an Internet
3 protocol (IP) on the network.

1 59. (Original) The computer-readable medium of Claim 58, wherein the fourth data
2 further comprises input parameters and corresponding values for use by the application at the
3 URL address in providing the service associated with the page.

1 60. (Original) The computer-readable medium of Claim 41, wherein:
2 the graphical element is included on a different page associated with requesting a
3 different service from a second application;
4 the different page has a third reference; and
5 the instructions further causing the one or more processors to perform the step of
6 requesting the different service from the second application in response to
7 receiving the third data based on the third reference.

1 61. (Original) The computer-readable medium of Claim 60, wherein the second
2 application is different than the first application.

1 62. (Original) The computer-readable medium of Claim 60, wherein the second
2 application is the same as the first application.

1 63. (Original) The computer-readable medium of Claim 60, wherein:
2 the information managed by the mobile applications server includes fourth data
3 describing the different page including the third reference to the different page;
4 the step of requesting the different service from the second application further
5 comprising sending fifth data to the second application based on at least one of
6 the first data and the fourth data.

1 64. (Original) The computer-readable medium of Claim 60, wherein the step of requesting
2 the different service from the second application comprises invoking a particular method of
3 the second application.

1 65. (Original) The computer-readable medium of Claim 64, wherein:
2 the particular method is an event handling method for an exiting page event associated
3 with the different page;
4 the step of invoking the particular method further comprises generating an exiting
5 page event for the different page; and
6 the exiting page event includes the third reference.

1 66. (Original) The computer-readable medium of Claim 65, wherein:
2 the page is data structure that inherits methods and attributes from a mobile bean class
3 defining an event handling interface for an exiting page event; and
4 the particular method is an implementation of the event handling interface; and
5 the page includes the particular method.

1 67. (Original) The computer-readable medium of Claim 66, wherein the mobile bean class
2 inherits methods and attributes from a JavaBeans class.

1 68. (Original) The computer-readable medium of Claim 60, wherein the second data does
2 not include the third reference.

1 69. (Original) The computer-readable medium of Claim 60, wherein the third data does
2 not include the third reference.

1 70. (Original) The computer-readable medium of Claim 60, said step of requesting the
2 different service further comprising providing fourth data to the application.

1 71. (Original) The computer-readable medium of Claim 70, wherein the fourth data
2 comprises a universal resource locator (URL) address for the page for use with an Internet
3 protocol (IP) on the network.

1 72. (Original) The computer-readable medium of Claim 71, wherein the fourth data
2 further comprises input parameters and corresponding values for use by the application at the
3 URL address in providing the service associated with the page.

1 73. (Original) The computer-readable medium of Claim 71, wherein the second data does
2 not include the URL address.

1 74. (Original) The computer-readable medium of Claim 71, wherein the third data does
2 not include the URL address.

1 75. (Currently Amended) A computer-readable medium carrying instructions for
2 interacting with a client process on a mobile device connected to a network over a wireless
3 link to navigate an application, the computer-readable medium comprising instructions for
4 causing one or more processors to perform the steps of:
5 managing information at a mobile application server executing on a platform
6 connected to the network, the information including
7 first data describing a plurality of pages sent for display on the mobile device,
8 each page associated with requesting a service from an application,
9 wherein each page has one or more graphical elements and the first
10 data includes a reference to each graphical element of the one or more
11 graphical elements, and
12 second data describing associations between special keys on the mobile device
13 and page changes among the plurality of pages;
14 receiving third data from the client process indicating a user of the mobile device has
15 pressed a particular key of the special keys; and

16 in response to receiving the third data, performing the steps of:
17 determining a particular page change of the page changes associated with the
18 particular key, ~~and~~
19 requesting the particular page change from the application,
20 determining a particular page of the plurality of pages based on the first data
21 and the particular page change, and
22 sending, to the client process for rendering a particular graphical element of
23 the particular page, fourth data based on the first data, the fourth data
24 including a particular reference to the particular graphical element.

1 76. (Original) The computer-readable medium of Claim 75, wherein the page changes
2 include a page back change and a page forward change.

1 77. (Original) The computer-readable medium of Claim 75, wherein the page changes
2 include a return to a menu page.

1 78. (Currently Amended) The computer-readable medium of Claim 75, said step of
2 requesting the particular page change from the application comprising the steps of:
3 ~~determining a particular page of the plurality of pages based on the first data and the~~
4 ~~particular page change; and~~
5 requesting the particular page from the application.

1 79. (Currently Amended) The computer-readable medium of Claim 78, said step of
2 requesting the particular page from the application comprising the steps of:
3 generating ~~fourth~~fifth data indicating the particular page; and
4 invoking a first method of the application with the ~~fourth~~fifth data as an input
5 parameter.

1 80. (Currently Amended) The computer-readable medium of Claim 79, wherein:
2 the ~~fourth~~fifth data describes an event; and

3 the first method of the application is an event handling method.